Notice of Allowability	Application No.	Applicant(s)
	10/813,312	NAYAK ET AL.
	Examiner	Art Unit	
	Cheryl Lewis	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the applicants' communication received on October 29, 2007*.

2. ☒ The allowed claim(s) is/are *1, 3-10, 12-22, 24, 26-30, 32-34, and 38, renumbered as claims 1-30*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Cheryl Lewis
Patent Examiner, A.U. 2167
January 22, 2008

DETAILED ACTION

1.   Claims 1, 3-10, 12-22, 24, 26-30, 32-34, and 38 are allowed. These claims have been renumbered as claims 1-30.

2.   Claims 2, 23, 25, 31, 39, and 40 have been cancelled in the amendment received on October 29, 2007.

Drawings

3.   The drawings filed on March 30, 2004 are accepted by the Examiner.

EXAMINER'S AMENDMENT

4.   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Bhavani Rayaprolu on January 17, 2008.

5.   Claims 1, 3, 5, 6, 9, 14, 22, 26, 32, and 38 have been amended and claims 11 and 35-37 have been cancelled as follows:

1. (Currently Amended)   A full-text search computer implemented system comprising:

a plug-in component <u>executed on a computer provided by a third party developer</u> that defines a relevant score algorithm and a full-text index schema, wherein the relevance algorithm facilitates ranking matching documents and providing a list of documents in order of their relevance; and

a search component to receive and utilize the plug-in component to query data from a data store, populate an index in accordance with the provided index schema and utilize the index to generate a list of matching documents in order of their relevance as specified by the relevant score algorithm, <u>the query data is modified by one or more components specified by the third party developer;</u>

<u>wherein the third party developer specified components are executed as separate daemon processes managed by an external host controller component from within a database management system</u>.

3. (Currently Amended) The system of claim [2] <u>1</u>, wherein the plug-in component specifies how the schema is to be populated.

5. (Currently Amended) The system of claim 4, wherein the database management system <u>comprises a</u> query execution engine <u>that</u> executes received full-text queries and database queries.

6. (Currently Amended) The system of claim 5, wherein the full-text queries are optimized by ~~the~~ <u>a</u> database management system optimization component.

9. (Currently Amended) A full -text indexing computer implemented system

comprising:

a gatherer component to retrieve a document from a data store;

a producer pipeline component that parses the structure and text of the retrieved

document in accordance with a plurality of third party developer specified components;

and

a consumer pipeline component that receives data from the producer pipeline

component and persists data to an inverted index, upon receipt of data, the consumer

pipeline component consumes the data and takes action via executing a message

through transacted message queues[.] ;

the inverted index is modified by the third party developer specified components

wherein the third party developer specified components are executed as separate

daemon processes managed by an external host controller component from within a

database management system.

11. (Cancelled)

14. (Currently Amended)   A full text query computer implemented system tightly

integrated with a database management system comprising:

a parser component that tokenizes received queries;

an execution plan generation system the generates an execution plan based on

tokens received from the parser component and a ranking algorithm provided by a third

party developer via a ranking plug-in component, wherein the ranking algorithm ranks

documents from most to least relevant;

an execution engine component that utilizes the execution plan to search an

index and produce a list of matching documents in order as specified by the ranking

algorithm[.];

the execution plan is modified by the third party developer specified component

wherein the third party developer specified component is executed as separate daemon

process managed by an external host controller component from within a database

management system.

22. (Currently Amended) .A computer implemented method of employing a

customized full-text query comprising:

retrieving a full-text indexing schema and ranking algorithm from a plug-in

component provided by a third party developer;

populating an index in accordance with the provided indexing schema;

receiving a query;

generating a list of documents utilizing the index; and

displaying the list of documents by ranked in accordance with their relevance by

the ranking algorithm, wherein the list of documents are displayed in order from most to

least relevant[.] ; and

modifying the query by the third party developer specified component wherein

the third party developer specified component is executed as separate daemon process

managed by an external host controller component from within a database management

system.

    26. (Currently Amended) A customized indexing computer implemented

methodology comprising:

    retrieving a document from a data source;

    removing document formatting data and emitting text chunks;

    parsing the text ~~chucks~~ chunks into keywords;

    persisting the keywords to an index, the index schema being defined by a third

party developer;

    employing a ranking algorithm to facilitate ranking matching documents, wherein

the ranking algorithm ranks documents from most to least relevant; and

    displaying a list of documents by rank in accordance with the ranking algorithm;

    and

    modifying the index by the third party developer specified component wherein the

third party developer specified component is executed as separate daemon process

managed by an external host controller component from within a database management

system.

    32. (Currently Amended) A full text search computer implemented methodology

comprising:

    receiving a search request;

generating a query expression in response to the search request which includes

a third party developer specified ranking algorithm for determining the relevance of

result documents, wherein the ranking algorithm ranks documents form most to least

relevant;

modifying the query expression to include, remove, add, or modify keyword

terms, wherein the query expression is modified by one or more components specified

by a third party developer and the third party developer specified components are

executed as separate daemon processes managed by an external host controller

component from within a database management system; and

displaying a list of documents by rank in accordance with the ranking algorithm.

35-37. (Cancelled)

38. (Currently Amended) The method of claim 35 32, wherein the query

expression is modified once at compile time and again at runtime.

REASONS FOR ALLOWANCE

6.   The following is a statement of reasons for the indication of allowable subject

matter:

The prior art of record does not render obvious to one ordinarily skilled in the art

at the time of applicant's invention nor anticipate the combination of claimed elements

including "a plug-in component executed on a computer provided by a third party developer that defines a relevant score algorithm and a full-text index schema, wherein the relevance algorithm facilitates ranking matching documents and providing a list of documents in order of their relevance; and a search component to receive and utilize the plug-in component to query data from a data store, populate an index in accordance with the provided index schema and utilize the index to generate a list of matching documents in order of their relevance as specified by the relevant score algorithm, the query data is modified by one or more components specified by the third party developer" as recited in independent claim 1.

As per claim 9, the prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "a producer pipeline component that parses the structure and text of the retrieved document in accordance with a plurality of third party developer specified components; and a consumer pipeline component that receives data from the producer pipeline component and persists data to an inverted index, upon receipt of data, the consumer pipeline component consumes the data and takes action via executing a message through transacted message queues."

As per claim 14, the prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "a parser component that tokenizes received queries; an execution plan generation system the generates an execution plan based on tokens received from the parser component and a ranking algorithm provided by a third party

developer via a ranking plug-in component, wherein the ranking algorithm ranks documents from most to least relevant; an execution engine component that utilizes the execution plan to search an index and produce a list of matching documents in order as specified by the ranking algorithm."

As per claim 22, the prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "retrieving a full-text indexing schema and ranking algorithm from a plug-in component provided by a third party developer; populating an index in accordance with the provided indexing schema; receiving a query; generating a list of documents utilizing the index; displaying the list of documents ranked in accordance with their relevance by the ranking algorithm, wherein the list of documents are displayed in order from most to least relevant" and similar recited in independent claim 32.

As per claim 26, the prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "retrieving a document from a data source; removing document formatting data and emitting text chunks; parsing the text ~~chucks~~ chunks into keywords; persisting the keywords to an index, the index schema being defined by a third party developer."

The remaining claims, 3-8, 10, 12, 13, 15-21, 24, 27-30, 33, 34, and 38, are dependent claims, thus these claims are patently distinct over the art of record for at least the above reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

NAME OF CONTACT

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl Lewis/
Patent Examiner, A.U. 2167
January 22, 2008